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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/940,474	08/29/2001	Yasuo Shinohara	Q65911	4884

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2100 Pennsylvania Avenue, N.W.
Washington, DC 20037-3213

EXAMINER

WILLS, MONIQUE M

ART UNIT	PAPER NUMBER
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1746

DATE MAILED: 01/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/940,474

Applicant(s)

SHINOHARA ET AL.

Examiner

Wills M Monique

Art Unit

1746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Response to Amendment

This office action is responsive to the amendment filed November 10, 2003. The objection of claims 3 and 9-11 under 37 C.F.R. § 1.75 (c) is overcome. The objection of claims 4 and 9-11 for lacking antecedent basis is overcome. The 35 U.S.C. § 112 rejection of claims 10-11 is overcome. The rejection of claims 1-9 under 35 U.S.C. 103(a) as being unpatentable over Kurauchi et al. U.S. Patent 5,691,047 is maintained. Claims 10-11 are included in the Kurauchi rejection now that their improper dependency is overcome.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurauchi et al. U.S. Patent 5,691,047.

Kurauchi teaches a porous multi-layer film separator for a nonaqueous electrolyte battery comprising at least three united polyolefin layers, in which at least one layer is polyethylene (PE) and at least one layer is polypropylene (PP) placed in

contact with the polyethylene layer (abstract). The polypropylene films serve as both a spacer having a form of a porous film and a heat-resistant microporous layer (Fig. 1 & col. 2, lines 40-55). The polypropylene layers have a thermal durability to maintain the shutdown condition up to a certain temperature (col. 2, lines 40-50). Lastly, the polypropylene spacer is adjacent the cathode when the assembly of Fig. 1 separates opposing electrodes.

The Kurauchi reference does not expressly disclose the spacer layer placed on the surface of the heat-resistant layer. The reference does not expressly disclose the spacer comprising an electrochemically stable substance that has a static friction coefficient between the separator surface and a stainless steel surface ground by a 1000 grit polishing paper is 0.5 or less.

However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ polypropylene porous film on the surface of the heat-resistant polyethylene layer, since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. More specifically, if numerous multi-layer films are employed, the PP layers would encompass PE layers providing PP spacers and/or shutdown layers juxtaposing the heat-resistant layer.

Regarding the spacer consisting of an electrochemically stable layer with said static friction coefficient, it would be reasonable to expect the polypropylene spacer of Kurauchi to exhibit such characteristics because it appears to be made from the same polyolefin material as the subject invention.

Response to Arguments

Applicant asserts that the Kurauchi reference does not teach the heat resistant porous layer because it does not have deflection properties defined in the instant specification. This argument is not persuasive. The limitations on which the Applicant relies (i.e., the deflection properties) are not stated in the claims. It is the claims that define the claimed invention, and it is the claims, not specifications that are anticipated or unpatentable. *Constant v. Advanced Micro-Devices Inc.*, 7 USPQ 2d 1064.

Applicant further contends that Kurauchi does not teach the benefits of the combination of a heat-resistant porous layer and a spacer. This argument is not persuasive. The fact that Applicant uses said layer and spacer for a different purpose does not alter the conclusion that its use in a prior art device would be prima facie obvious from the purpose disclosed in the reference. In *re Linter*, 173 USPQ 560. In other words, the combination of references does not require the same benefit achieved by Applicant, as long a prima facie case has been established.

Conclusions

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

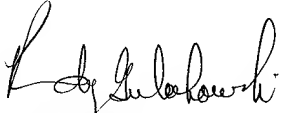
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Monique Wills whose telephone number is (571) 272-1309. The Examiner can normally be reached on Monday-Friday from 8:30am to 5:00 pm.

If attempts to reach Examiner by telephone are unsuccessful, the Examiner's supervisor, Randy Gulakowski, may be reached at 571-272-1302.

The Official fax number is 703-872-9306.

Mw


RANDY GULAKOWSKI
SUPERVISOR
TECHNOLOGY